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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/073,630	02/11/2002	Douglas N. Kimelman	YOR920020023	4522

7590 01/03/2007  
Casey August  
Intellectual Property Law Dept.  
IBM Corporation  
P.O. Box 218  
Yorktown Heights, NY 10598

EXAMINER
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MITCHELL, JASON D

ART UNIT	PAPER NUMBER
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2193

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	01/03/2007	PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

**Office Action Summary**

Application No.

10/073,630

Applicant(s)

KIMELMAN ET AL.

Examiner

Jason Mitchell

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 02 October 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-13 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-13 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)          | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

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1. In view of the appeal brief filed on 10/02/06, PROSECUTION IS HEREBY REOPENED. New Grounds of rejection are set forth below.

To avoid abandonment of the application, appellant must exercise one of the following two options:

(1) file a reply under 37 CFR 1.111 (if this Office action is non-final) or a reply under 37 CFR 1.113 (if this Office action is final); or,

(2) initiate a new appeal by filing a notice of appeal under 37 CFR 41.31 followed by an appeal brief under 37 CFR 41.37. The previously paid notice of appeal fee and appeal brief fee can be applied to the new appeal. If, however, the appeal fees set forth in 37 CFR 41.20 have been increased since they were previously paid, then appellant must pay the difference between the increased fees and the amount previously paid.

A Supervisory Patent Examiner (SPE) has approved of reopening prosecution by signing below:

***Claim Rejections - 35 USC § 101***

**2. Claims 5-11 and 13 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.**

**3. Regarding Claims 5-8 and 13:** The claims recite "A computer readable medium". The specification states a "computer readable medium may include computer readable information in a transitory state medium such as a network link and/or a network interface, including a wired network or a wireless network, that allow a computer to read such computer readable information." (see pg. 22). Consequently the claims are not limited to tangible embodiments and are rejected as non-statutory.

**4. Regarding Claim 9-11:** The claims recite "A computer program". Computer programs claimed as computer listings per se, i.e., the descriptions or expressions of the programs, are not physical "things." They are neither computer components nor statutory processes, as they are not "acts" being performed. Such claimed computer programs do not define any structural and functional interrelationships between the computer program and other claimed elements of a computer, which permit the computer program's functionality to be realized.

***Claim Rejections - 35 USC § 112***

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**1. Claims 1, 5 and 9 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.**

Applicant has not made clear what the term "cost-related information" is meant to encompass.

***Double Patenting***

**2. Claims 1 and 5 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 13 and 19 of copending Application No. 10/073,628 (the '628 application). Although the conflicting claims are not identical, they are not patentably distinct from each other because**

**3. Claim 1 of the instant application would have been obvious over claim 13 of the '628 application.**

**4. Claim 5 of the instant application would have been obvious over claim 19 of the '628 application.**

**5. Claims 1 and 5 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claim 2 and 7 of copending Application No. 10/073,608 (the '608 application). Although the conflicting claims are not identical, they are not patentably distinct from each other because.**

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6. Claim 1 of the instant application would have been obvious over claim 2 of the '608 application.

7. Claim 5 of the instant application would have been obvious over claim 7 of the '608 application.

**This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.**

***Claim Rejections - 35 USC § 103***

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. **Claims 1-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over "Dynamic Program Monitoring and Transformation Using the OMOS Object Server" by Orr et al ("Dynamic Program Monitoring") in view of Program Specialization Using the OMOS System" by Orr et al. ("Program Specialization").**

10. **Regarding Claims 1, 5 and 9: "Dynamic Program Monitoring" discloses minimizing the cost of using a component of a computer program, the method comprising steps of:**

instrumenting said component to gather cost-related information during at least a partial run of said program (pg. 8, Section 4 “the resulting object includes interposed monitor procedures [to] send an event trace back to OMOS”);

using the cost-related information to estimate a cost for using of a component in running the program (pg. 8, Section 4 “analyzes this information to derive a desired ordering of procedures within the executable”; cost estimation is necessary to determine an optimal ordering); and

based on the costs estimated, at runtime, generating an implementation for a subsequent at least partial run of the program (pg. 8, Section 4 “analyzes this information to derive a desired ordering of procedures within the executable”).

11. “Dynamic Program Monitoring” does not disclose selecting, at runtime, one of a plurality of explicitly selectable implementations.

12. “Program Specialization” teaches selecting at runtime, one of a plurality of explicitly selectable implementations (pg. 10, Section 6.3 “The various derived classes implement strategies appropriate to different performance tradeoffs.”)

13. It would have been obvious to one of ordinary skill in the art at the time of the invention to select, at runtime, one of the plurality of explicitly selectable implementations taught in “Program Specialization” (pg. 10, Section 6.3) based on the instrumentation disclosed in “Dynamic Program Monitoring” (pg. 8, Section 4) because

"different strategies are applicable for different program or even different runs of the same program" ("Dynamic Program Monitoring" , pg. 13, par. 5) and "The various derived classes implement strategies appropriate to different performance tradeoffs ("Program Specialization" pg. 10, Section 6.3).

14. **Regarding Claims 2, 6 and 10:** The rejection of claims 1, 5 and 9 are incorporated; further "Dynamic Program Monitoring" discloses a default implementation is used during the at least partial run (pg. 9, par. 1, "the original blueprint").

15. **Regarding Claims 3 and 7:** The rejection of claim 1 and 5 are incorporated; further "Program Specialization" teaches the selecting step is carried out by another component operable as a controller (pg. 5, par. 8 "OMOS evaluates the module specification, producing an implementation").

16. **Regarding Claims 4 and 8:** The rejection of claims 1 and 5 are incorporated; further "Dynamic Program Monitoring" discloses the selecting step is carried out by an application program (pg. 11, par. 2, "OMOS runs an external analysis program").

17. **Regarding Claims 12 and 13:** The rejection of claims 1 and 5 are incorporated; further "Dynamic Program Monitoring" discloses providing the component with the plurality of explicit selectable implementations which share a common component



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interface and semantics (pg. 8, par. 2 "a given interface can face a range of operation conditions, each of which requires a different implementation").

18. **Regarding Claim 11:** see the rejection of claim 9.

### ***Conclusion***

19. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jason Mitchell whose telephone number is (571) 272-3728. The examiner can normally be reached on Monday-Thursday and alternate Fridays 7:30-5:00.


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Meng An can be reached on (571) 272-3756. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Jason Mitchell  
12/18/06



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